

Dear Partner,

This week was a challenging week for our partners using Web-Based MAP. This is not the experience we strive for and we deeply regret that we caused such a painful experience.

Many of you experienced interrupted or suspended testing because of multiple technical problems in MAP. These problems included hardware failures in network equipment, resiliency failures, and degraded performance due to anomalous traffic generated by the changing patterns of testing.

To address these problems, we have taken the following steps over the past week.

- We replaced hardware and audited our network configuration; we then asked Cisco to confirm the configuration and health of our system.
- We strengthened our solutions to automatically switch to redundant systems in case of failure; this work was confirmed with third party experts.
- We expanded our hardware and systems infrastructure to increase the overall processing power available to MAP assessment.
- We temporarily delayed end-of-test reporting until end of day to optimize students' testing experience. Students will still immediately receive their reports at the end of the testing session.

As we made these changes we asked many of you to suspend or delay testing for one or more days. This allowed us to ensure the changes we made fully solved the problems. As we monitored the system with the changes, we were able to observe performance improvements that meet planned system performance needs for this year. During this time, we asked you for your support and for you to make difficult adjustments to your testing plans. We greatly appreciate your cooperation.

We are happy to now tell you we are returning to normal operating hours. We may continue to process reporting for class, grade, and district reporting during the nightly processing window. These reports will be available the following day at the latest.

We would also like to share with you more detail on the work we have done over the last 12 months to improve our system performance.

- We doubled our hardware resources in support of what our projected testing volumes would be during peak seasons.
- We rewrote or replaced critical software components to better achieve performance and availability requirements.
- We integrated a content delivery network (CDN) using Amazon's CloudFront to accelerate content delivery and reduce system load. This distributes graphics and large files on thirteen servers distributed across the United States.
- We increased stress testing capacity by leveraging both internal and external expertise, people, and system resources which resulted in significantly improved capacity. This includes the creation of a cloud-based, load testing platform to stress test the assessment, administration, and reporting platforms.
- We replaced operational monitoring, logging, alerting, and administration tool sets and processes to increase our ability to detect and respond to system issues proactively.

We invite you to contact us if you have any questions or need additional information. We know that to serve you best, it is critical to provide more frequent and clear communication during periods of difficulty. We are committing that in our future communications with you we will be specific, transparent, and timely.

Finally, we want to apologize to those of you that had a poor experience with MAP this week and to thank you again for your support and partnership with NWEA.

Sincere regards,

Matthew Lange

Sr. Director of Product Management